



Safety Data Sheet

Section 1: Identification

Product Name FFR-K1 Flexible Roof Coating
Product Number FFR-K1
Synonyms N/A
Product Class / Usage Single Component Aliphatic Polyurethane Roof Coating LOW VOC

Supplier Final Flat Roof
1569 Alison Drive
West Palm Beach, FL 33409
Phone/Fax 866-637-ROOF(7663) / 941-866-ROOF(7663)
Website www.finalflatroof.com

Manufacturer Fielco, LLC.
1957 Pioneer Road, Bldg. B
Huntingdon Valley, PA 19006
Phone/Fax 215-674-8700 / 215-674-1712
Website www.fielco.com

Emergency Telephone Number **1-800-424-9300 (Chemtrec)**

Section 2: Hazard(s) Identification

OSHA / HCS Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the Substance or Mixture Flammable Liquids, category 2
Acute Toxicity, category 4
Skin Irritant, category 1
Skin Sensitizer, category 1
Eye Irritant, category 2
Chronic Aquatic Toxicity, Category 2

Signal Word DANGER

Hazard Statements Highly flammable liquid and vapor
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
Toxic to aquatic life with long lasting effects
Harmful if inhaled.

GHS Pictogram(s)



Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground and bond container and receiving equipment.
Use non-sparking tools.
Store in a well ventilated place. keep container tightly closed.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of soap and water
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Remove/Take off immediately all contaminated clothing and was it before reuse.
Collect spillage
dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Emergency Overview

Irritant.

Route of Exposure

Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects

EYE: Causes eye irritation
SKIN: Causes skin irritation
INHALATION: Prolonged or excessive inhalation may cause respiratory tract irritation.
INGESTION: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects

Prolonged or repeated skin contact may cause irritation or allergic skin sensitization reaction.

Target Organs

Eyes, Skin, Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions May aggravate pre-existing respiratory disorders, allergy, eczema or skin conditions.

Section 3: Composition/Information on Ingredients

Substance / Mixture	Mixture		
Ingredient Name	CAS Number		WT/WT % Less Than
IPDI Prepolymer Blend	trade secret		40
Aluminum hydroxide (Al(OH) ₃)	21645-51-2		24
Titanium oxide (TiO ₂)	13463-67-7		20
Carbonic acid, dimethyl ester	616-38-6		13
Phenol, isopropylated, phosphate (3:1)	68937-41-7		11
Sulfuric acid, barium salt (1:1)	7727-43-7		8
Phosphoric acid, triphenol ester	115-86-6		7

Trade Secret Statement The specific chemical identity and/or the exact percentage of composition has been withheld to protect confidentiality.

Section 4: First-Aid Measures

Eye Contact	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.
Skin Contact	Take off contaminated clothing and shoes immediately. Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion	If swallowed, do NOT induce vomiting. call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Note to Physicans	Treat symptomatically.

Section 5: Fire-Fighting Measures

Flash Point 14.4°C (57.9°F)

Flash Point Method	Pensky-Marten Closed Cup (PMCC)
Lower Flammable / Explosive Limit	4.2%; estimated on Dimethyl Carbonate
Upper Flammable / Explosive Limit	12.9%; estimated on Dimethyl Carbonate
Extinguishing Media	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog when fighting fires involving this material.
Unsuitable Media	Do not use water jet as an extinguisher, as this will spread the fire.
Protective Equipment	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Hazardous Combustion Byproducts	Oxides of phosphorus, Carbon monoxide, Carbon dioxide.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Use proper personal protective equipment as listed in section 8.

Environmental precautions

Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches, waterways by using sand, earth or appropriate barriers.

Methods and materials for containment and cleaning up

Absorb spill with inert material (e.g. dry sand or earth) then place in a chemical waste container.
After removal, flush spill area with soap and water to remove trace residue.

Section 7: Handling and Storage

Handling	Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
Storage	Store in a cool, dry well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.
Hygiene Practices	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Section 8: Exposure Controls / Personal Protection

Occupational Exposure Limits

<u>Ingredient</u>	<u>Exposure Limits</u>
Titanium oxide (TiO ₂)	ACGIH TLV-TWA: 10 mg/m ³
Phosphoric acid, triphenyl ester	OSHA PEL-TWA: 3mg/m ³
Sulfuric acid, barium salt (1:1)	OSHA PEL-TWA: 15 mg/m ³ total particulate/dust

Personal Protection

Eye/Face Protection	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN166.
Skin Protection	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
Respiratory Protection	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Appropriate Engineering Controls	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedure for selection, training, inspection and maintenance of the personal protective equipment.

Section 9: Physical and Chemical Properties

Appearance	
-Physical State	Viscous Liquid
-Color	White, milky

Odor	Sweet, distinct
Odor Threshold	Not determined
pH	Not determined
Melting Point / Freezing Point	Not determined
Initial Boiling Point / Boiling Range	Range - Starts at 91°C (196°F)
Flash Point	14.4°C (57.9°F)
Evaporation Rate	Not determined
Flammability (solid/gas)	Not determined
Explosive Limits	Not applicable
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	1.50
Solubility	Negligible solubility in water.
Partition of Coefficient n-octanol/water	Not determined
Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	Not determined

Section 10: Stability and Reactivity

Reactivity	No dangerous reaction known under conditions of normal use.
Chemical Stability	Stable under normal storage conditions.
Conditions to Avoid	Heat, flames, incompatible materials and freezing or temperatures below 0°C (32°F)
Incompatible Materials	Bases, Acids, Amines, Water, Alcohols.

Section 11: Toxicological Information

Information on Likely Routes of Exposure Eyes, skin, Inhalation, Ingestion.

Acute Toxicity

Ingredient Name	LD50
Phosphoric acid, triphenol ester	>7,900 mg/kg (rabbit, dermal)
Phenol, isopropylated, phosphate (3:1)	>2,000 mg/kg (rat, dermal) >11,000 mg/kg (rabbit, dermal) >20,000 mg/kg (rat, oral)

Carbonic acid, dimethyl ester

>5 gm/kg (rabbit, dermal)
13 gm/kg (rat, oral)

Carcinogenicity Titanium oxide (TiO₂) is listed IARC: Group 2B – Possibly carcinogenic to humans.

Section 12: Ecological Information

Ecotoxicity No ecotoxicity data was found for the product. Aquatic toxicity is expected based on similar materials.

Environmental Fate Not determined.

Section 13: Disposal Considerations

Disposal Method Refer to the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, refer to your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local regulations.

Section 14: Transport Information

U.S. DOT UN1866, Resin Solution, Flammable, Class 3, PG II

I.A.T.A. / I.C.A.O UN1866, Resin Solution, Flammable, Class 3, PG II

I.M.D.G. UN1866, Resin Solution, Flammable, Class 3, PG II, Marine Pollutant

Section 15: Regulatory Information

United States Regulations

OSHA Hazardous by definition of Hazard Communication Standard

TSCA 8(b) Inventory All components are listed or exempted.

TSCA 12(b) Export Notification No ingredients listed

SARA 311/312 Acute Health, Delayed Health, Fire

SARA 313 No ingredients listed.

State Regulations

Titanium oxide Massachusetts: listed.
Pennsylvania: listed.
Minnesota: listed.
Rhode Island: listed – toxic

Phosphoric acid, triphenol ester Massachusetts: listed.
Pennsylvania: listed.
Minnesota: listed.
Rhode Island: listed – toxic

Caronic acid, dimethyl ester Massachusetts: listed.
Pennsylvania: listed.

Sulfuric acid, barium salt Massachusetts: listed.
Pennsylvania: listed.
Minnesota: listed.

Section 16: Other Information

REVISION DATE: 5/29/2015

Additional Product Information: For technical information, call 866-637-ROOF(7663).

The information contained on this SDS is been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State and Local laws and regulations.